

WHAT IS CLAIMED IS:

1. A swing control apparatus for a swing type hydraulic shovel including a working machine of which base end portion
5 is attached to a front end portion of an upper revolving superstructure with a swing pin to be laterally swingable, and which is swingingly driven by swing drive means, comprising:
 a swing angle detector for detecting that a swing angle of said working machine is within a predetermined angle range
10 short of a stroke end; and
 a controller for outputting a speed reduction command to reduce a swing speed gradually from a position at a predetermined angle short of the stroke end of a swing toward the stroke end, based on a swing angle signal inputted from said
15 swing angle detector.
2. The swing control apparatus for the swing type hydraulic shovel according to Claim 1,
 wherein said swing pins are separated up and down and
20 fitted; and
 wherein said swing angle detector is continuously provided at a lower end portion of the upper swing pin out of said separated swing pins.
- 25 3. The swing control apparatus for the swing type

hydraulic shovel according to Claim 1,

wherein said swing drive means is constituted of a hydraulic actuator;

said swing control apparatus further comprising:

5 an operation valve for controlling a flow rate of pressure oil supplied to said hydraulic actuator correspondingly to an operating amount, and

proportional electromagnetic valves capable of controlling pilot pressure for operating said operation valve;

10 and

wherein said controller outputs the speed reduction command of the swing speed to said proportional electromagnetic valve to control a flow rate of said operation valve.

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4. The swing control apparatus for the swing type hydraulic shovel according to Claim 3,

wherein said swing pins are separated up and down and fitted; and

20 wherein said swing angle detector is continuously provided at a lower end portion of the upper swing pin out of said separated swing pins.

5. The swing control apparatus for the swing type

25 hydraulic shovel according to Claim 1, further comprising:

swing speed detecting means for detecting the swing speed of said working machine,

wherein said controller outputs said speed reduction command when the detected swing speed is a predetermined speed or more.

6. The swing control apparatus for the swing type hydraulic shovel according to Claim 5,

wherein said swing pins are separated up and down and fitted; and

wherein said swing angle detector is continuously provided at a lower end portion of the upper swing pin out of said separated swing pins.

7. The swing control apparatus for the swing type hydraulic shovel according to Claim 1,

wherein said position at which speed reduction of the swing speed is started is a fixed position irrespective of the swing speed.

8. The swing control apparatus for the swing type hydraulic shovel according to Claim 7,

wherein said swing pins are separated up and down and fitted, and

wherein said swing angle detector is continuously

provided at a lower end of the upper swing pin out of said separated swing pins.